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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------|------------------|
| 10/041,122 | 01/08/2002 | Juha T. Rantala | GO4-US | 4512 |
| 20374 | 7590 | 08/06/2004 | EXAMINER | |
| KUBOVCIK & KUBOVCIK SUITE 710 900 17TH STREET NW WASHINGTON, DC 20006 | | | NWAONICHA, CHUKWUMA O | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1621 | |

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/041,122

Applicant(s)

RANTALA ET AL.

Examiner

Chukwuma O. Nwaonicha

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 57-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-56 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Claims 1-59 are pending in the application.

Election/Restrictions

Applicants' election, filed on 6/16/04 without traverse of Group 1 is acknowledged. Group 2, claims 57-59 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. All claims consisting of Group 1: claims 1-56 will be examined on the merit in turn. Applicants' are reminded of their right to file divisional applications to the non-elected claims.

Applicants' are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

The specification is objected to because the structures on pages 26, 29, 30, 37 and 39 overlap with the page numbers while the structures on 40 and 41 show an overlap of fluorine atoms. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

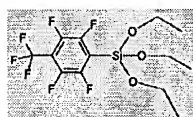
Claims 1-56 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Roscher et al. {U.S. Pat. 5,973,176}.

Applicants claim a compound of the general formula 1A below:

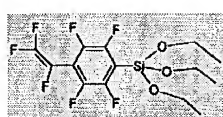


1A

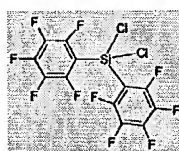
wherein R_1 and R_2 are independently an aryl, alkyl, alkenyl, epoxy or alkynyl group, wherein at least one of R_1 and R_2 is fully or partially fluorinated, wherein M is selected from group 14 of the periodic table, wherein R_4 and R_5 are independently an alkoxy group, OR_3 , or a halogen group, X , except where M is Si, R_4 and R_5 are both ethoxy groups or both chlorine groups, and R_1 and R_2 are perfluorinated groups. Typical example of compound applicants claim as their invention are shown below, figures 1B-1F.



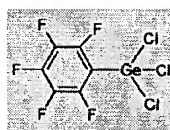
1B



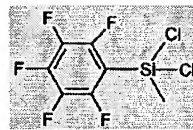
1C



1D

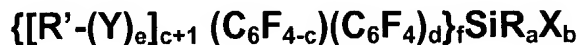


1E



1F

Roscher et al. teach hydrolyzable, fluorinated silanes with a general formula 1G:



1G

wherein R are independently an aryl, alkyl, alkenyl, alkylaryl, arylalkyl or alkynyl group, each with 1 to 15 carbon atoms, R' is Br, Cl (if $d \neq 0$), F (if $d \neq 0$), H (if $X \neq H$), or $R \neq$

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methyl or organic group with 1 to 50 carbon atoms, X is H, Br, Cl, alkoxy, Y is O, S, NH, NR' where R' is an organic group with 1 to 50 carbon atoms, a is 0, 1 or 2, b is 1, 2, or 3, c is 0 or 1, d is 0 to 9, e is 0 or 1, f is 1, 2 or 3, with $a+b+f = 4$, (See pages 2 and 36 of U.S. Pat. 5,973,176).

Some of the compounds Roscher et al. taught include the following which applicants claim as their invention (see page 15, line 65; page 18, line 33 and page 21, line 5).



1H



1I

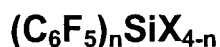


1J

The teaching of Roscher et al. covers the claim invention of applicants.

Claims 1-56 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Frohn et al., {Journal of Organometallic Chemistry, 1998, 568 (1-2), 233-240}.

Frohn et al. disclose halogeno(pentafluorophenyl)silanes of general formula 1K:



1K

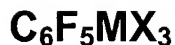
wherein X is F, Cl and Br; n is 2 or 3. Some of the compounds taught by Frohn et al. include, $(\text{C}_6\text{F}_5)_2\text{SiCl}_2$, $(\text{C}_6\text{F}_5)_3\text{SiCl}$, $(\text{C}_6\text{F}_5)_2\text{SiBr}_2$, and $(\text{C}_6\text{F}_5)_3\text{SiBr}$, (see page 234).

Frohn et al. teaching embraced the instantly claim halogenated pentafluorophenylsilane compounds.

Claims 1-56 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bardin et al. { Journal of Fluorine Chemistry, 60 (2-3), 141-151}.

Bardin et al. disclose fluorinated compounds of general formula 1L:

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1L

wherein M is Si, Ge ; X is F, Cl, Br or alkyl. Some of the compounds taught by Bardin et al. include the following: $\text{C}_6\text{F}_5\text{GeCl}_3$ and $\text{C}_6\text{F}_5\text{GeBr}_3$, (see page 148).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chukwuma O. Nwaonicha whose telephone number is 571-272-2908. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Chukwuma O. Nwaonicha, Ph.D.
Patent Examiner
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J. PARSA
PRIMARY EXAMINER


For

Johann R. Richter, Ph.D., Esq.
Supervisory Patent Examiner,
Technology Center 1600